

National Aeronautics and  
Space Administration  
**Office of the Administrator**  
Washington, DC 20546-0001



February 2, 2003

Admiral Hal Gehman  
3725 Lynnfield Drive  
Williamsburg, VA

Dear Admiral Gehman:

This letter is to advise you that, pursuant to 42 U.S.C. §2473 (c)(1), Section 203 (c)(1) of the National Aeronautics and Space Act of 1958, as amended, and as a result of the loss of the Space Shuttle Columbia, I have formally activated the Columbia Accident Investigation Board. I am appointing you to be Chairman of this Board.

I am requesting your immediate and full cooperation with the investigation of the STS-107 Space Shuttle mishap of February 1, 2003. As Chairman of the Board, you are charged with all activities and responsibilities described in but not limited to the Columbia Accident Investigation Board Charter.

Among other things, the Board shall independently determine the facts, as well as the actual or probable causes of the Shuttle accident and recommend preventative or other appropriate actions to preclude recurrence of a similar nature. Our regulations stipulate that the Board issue a final report within 60 days from this date. However, if you feel that you need additional time to arrive at a responsible conclusion, do not hesitate to request such additional time as you deem fit. You are free to pursue whatever avenue you deem appropriate. A copy of the Charter is attached for your reference.

I have designated Mr. David Lengyel and Mr. Steven Schmidt from my staff to be your key points of contact. We will also make other staff available to directly support the Board's activities.

I am grateful for your dedication and service to our country in this time of great need. I trust that you will be diligent, thorough, and unrelenting in your work to determine the cause and prevent the recurrence of this tragedy.

Respectfully,

A handwritten signature in black ink, appearing to read "Sean O'Keefe".

Sean O'Keefe  
Administrator

# NASA Facts

National Aeronautics and  
Space Administration  
Washington, DC 20546  
(202) 358-1600



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For Release

Feb. 5, 2003

## **Columbia Accident Investigation Board Charter**

### **1. GUIDELINES**

In the case of a high-visibility, mission-related Shuttle mishap, the NASA Administrator may activate an International Space Station and Space Shuttle Mishap Interagency Investigation Board (the Board). Board activation is anticipated for events involving serious injury or loss of life, significant public interest, and other serious mishaps. The Board should consist of at least seven members, and be supported by the Office of Space Flight Headquarters and technical consultants as required.

### **2. ACTIVATION**

The recommendation for the NASA Administrator to activate this Board will normally be made at either the Associate Administrator for the Office of Space Flight-directed Mishap Response Teleconference or as a decision at the Administrator's HCAT meeting and/or teleconference. For this case, the NASA Administrator has determined effective at 10:30 am February 1, 2003, to convene such a Board and to name it the Columbia Accident Investigation Board.

### **3. MEMBERSHIP**

Chairman of the Board  
Admiral Hal Gehman, USN

#### **Board Members**

Commander, Naval Safety Center, Rear Admiral Stephen Turcotte  
Director, Plans and Programs, Headquarters Air Force Materiel Command,  
Maj. General John Barry  
Commander, HQ USAF Chief of Safety, Major General Kenneth W. Hess  
Chief, Aviation Safety Division, Department of Transportation, Dr. James N. Hallock

Director of Accident Investigation, Federal Aviation Administration, Mr. Steven B. Wallace  
Commander, 21<sup>st</sup> Space Wing, USAF, Brig. General Duane Deal  
Director, NASA Ames Research Center, Mr. Scott Hubbard

#### 4. BOARD SUPPORT

##### Standing Board Support Personnel

Ex-Officio Member: Mr. Bryan O'Connor, Associate Administrator for Safety and Mission Assurance

Executive Secretary: Mr. Theron Bradley, Jr., NASA Chief Engineer

Additional Support Personnel. The Board may designate consultants, experts, or other government or non-government individuals to support the Board as necessary.

Task Force Team Support. Within 72 hours of activation of the Interagency Board, the AA/OSF, the AA/SMA, the NASA Field Center Director or NASA Program Associate Administrator (Non-OSF or Non Mission Related), and the NASA Chief Engineer will meet to select and recommend Task Force Team members to the Mishap Board Chairman. Upon approval by the NASA Administrator, the Task Force Team members will convene and meet with the appropriate Working Group Team leads. The Task Force Team will support the Board and they will:

1. Be the formal interface between the Board and the activated Working Groups;
2. Monitor, collect, document, and file the reports of the Working Groups activated to support the mishap investigation;
3. Provide the Board members with requested information and reports from the Working Groups; and
4. Assist the Board in the preparation of interim and final reports as required.

#### 5. COLUMBIA ACCIDENT INVESTIGATION BOARD RESPONSIBILITIES

The Independent Board will:

1. Conduct activities in accordance with the provisions of applicable NASA policies and procedures.
2. Schedule Board activities, interim Board reports, and submission of the final Board report in coordination with the NASA Administrator.
3. Determine the facts, as well as the actual or probable causes of the Shuttle mishap in terms of dominant and contributing root causes and significant observations and, recommend preventive and other appropriate

actions to preclude recurrence of a similar mishap. The investigation will not be conducted or used to determine questions of culpability, legal liability, or disciplinary action.

4. Use the established NASA support structure of working groups, NASA Field Center support, and supporting facilities to conduct the investigations. This includes staff advisors as required for expertise in areas such as public affairs, legal, medical, safety, and security.
5. Activate the working groups appropriate to the mishap.
6. Obtain and analyze whatever facts, evidence, and opinions it considers relevant by relying upon reports of studies, findings, recommendations, and other actions by NASA officials and contractors or by conducting inquiries, hearings, tests, and other actions it deems appropriate. In so doing, it may take testimony and receive statements from witnesses. All elements of NASA will cooperate fully with the Board and provide any records, data, and other administrative or technical support and services that may be requested.
7. Impound property, equipment, and records to the extent that it considers necessary.
8. Release mishap information and mishap investigation reports in accordance with applicable NASA policies.
9. Develop recommendations for preventative and other appropriate actions. A finding may warrant one or more recommendations or may stand alone.
10. Provide a final written report to the NASA Administrator not later than 60 days.

February 1, 2003

Revised: February 6, 2003

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## COLUMBIA ACCIDENT INVESTIGATION BOARD MEMBER BIOGRAPHIES

**Adm. Harold W. Gehman Jr.**, U.S. Navy retired, completed more than 35 years of active duty in October 2000. His last assignment was as NATO's Supreme Allied Commander, Atlantic, and as the Commander in Chief of the U.S. Joint Forces Command, one of the five U.S. Unified Commands.

Immediately after retiring, Gehman served as Co-chairman of the Department of Defense review of the terrorist attack on the USS Cole. Gehman graduated from Pennsylvania State University with a Bachelor of Science degree in Industrial Engineering and a commission in the Navy from the Naval ROTC program. He served at all levels of leadership and command and was promoted to four-star admiral in 1996. He became the 29<sup>th</sup> Vice Chief of Naval Operations in September 1996. As Vice Chief he was a member of the Joint Chiefs of Staff, formulated the Navy's \$70 billion budget, and developed and implemented policies governing the Navy's 375,000 personnel.

**Maj. Gen. John L. Barry** is Director, Plans and Programs, Headquarters Air Force Materiel Command, Wright-Patterson Air Force Base, Ohio. Barry is a 1973 honor graduate of the U.S. Air Force Academy. He graduated from Fighter Weapons School, and was a test and evaluation pilot at Nellis Air Force Base, Nev. He was selected as a White House Fellow at NASA and worked as the NASA administrator's executive assistant and White House liaison during the Challenger accident, and he served as the Military Assistant to the Secretary of Defense during Operations Desert Shield and Desert Storm, and during the dissolution of the Soviet Union. He has commanded an Air Force fighter squadron, and, in a combat zone, a fighter operations group and a composite wing. He served as commander of Air Force units, where he led the recovery of a wing following the Blackhawk helicopter shoot-down at Incirlik Air Base, Turkey. His assignment prior to his current position was the Strategic Planner for the U.S. Air Force.

**Brig. Gen. Duane W. Deal** is Commander, 21st Space Wing, Peterson Air Force Base, Colo. The Air Force's largest, geographically and organizationally, the wing consists of a work force of more than 6,000 officer, enlisted, civilian and contract employees. The wing provides missile-warning and space-control for combat forces and the governments of the United States, Canada and the United Kingdom through its 43 units operating 15 weapon

systems at 20 worldwide locations in five countries spread across nine time zones. He has extensive flight experience in seven aircraft types, including the SR-71 Blackbird, crew commander experience in missile warning and space control, and extensive aircraft maintenance and logistics experience. He has served on or presided over 10 mishap investigations for space launch and aircraft incidents. He is serving in his eighth commander position in the U.S. Air Force.

**Dr. James Hallock** is Division Manager of the Department of Transportation's Aviation System Division. He is a senior member of American Institute for Aeronautics and Astronautics (AIAA), a member of the MIT Educational Council, and serves on review boards for the Canadian government, the Federal Aviation Administration (FAA), and the NASA Space Shuttle program. He has authored or co-authored two patents and more than 125 papers and reports. He worked in the Apollo Optics Group of the MIT Instrumentation Lab (now the Draper Lab) from 1963 to 1966. He dealt with selecting Earth landmarks for updating guidance computers on Apollo and was co-experimenter on a landmark contrast experiment flown on Gemini X. He also calculated lunar photometric functions and the potential effects of solar flare radiation on the optical systems of Apollo.

**Maj. Gen. Kenneth W. Hess** is the Air Force Chief of Safety, Headquarters U.S. Air Force, Washington, and Commander, Air Force Safety Center, Kirtland Air Force Base, N.M. Hess entered the Air Force in 1969 through Officer Training School at Lackland Air Force Base, Texas, and has extensive staff experience at Headquarters U.S. Air Force, the Joint Staff and U.S. Pacific Command. He has commanded three Air Force wings: 47th Flying Training Wing, 374th Airlift Wing and 319th Air Refueling Wing. Prior to assuming his current position, Hess was Commander of 3rd Air Force, Royal Air Force Base, Mildenhall, England. He is a command pilot with more than 4,200 hours in various aircraft.

**Scott Hubbard**, Director, NASA Ames Research Center, is responsible for the organization and oversight of Ames' research efforts. Hubbard has been a contributor to, and the developer of, space research missions since 1974.

**Rear Admiral Stephen A. Turcotte** is the Commander of the Naval Safety Center in Norfolk, Virginia. He graduated from Marquette University NROTC in 1975 with a Bachelor of Science Degree in Political Science. Upon graduation, he was ordered to flight training and was designated a Naval Aviator in 1977. A seasoned and decorated aviator, Turcotte has flown more than 5,500 flight hours in 15 different aircraft and logged over 500 carrier landings. He has earned Masters Degrees in National Security and Strategic Studies from the Naval War College and in Management from Salve Regina University. His tours have included several aviation squadrons, as well as shipboard and staff assignments. He commanded an aviation squadron, has served on the Joint Staff (Operations Division), was Commanding Officer of the Jacksonville Naval Air Station, and served as Deputy Commander of the Joint Task Force Southwest Asia at Prince Sultan Air Base, Saudi Arabia. In January 2002, he became the 48th Commander of the Naval Safety Center, the Navy's leading organization responsible for accident investigations, mishap analysis and dissemination of information to the fleet.

**Steven Wallace**, the Director of the Federal Aviation Administration (FAA) Office of Accident Investigation, has overall responsibility for all FAA accident investigation activity.

He is the principal FAA liaison with the National Transportation Safety Board (NTSB) and oversees the FAA response to all NTSB safety recommendations, as well as internal FAA safety recommendations. A lawyer by training, Wallace is also a licensed commercial pilot with multiengine and instrument ratings.

#### CONSULTANT

**Mr. Roger E. Tetrault** was appointed Vice Chairman and Chief Executive Officer of McDermott International, Inc. on March 1, 1997. He became Chairman on June 1, 1997 and retired in August 2000 after 24 years of service with McDermott. Mr. Tetrault left McDermott and its major subsidiary, Babcock and Wilcox, in 1991 to join General Dynamics as corporate vice president and president of its Electric Boat Division. At Babcock and Wilcox he had been the Vice President and Group Executive of the Government Group, where he was responsible for the diversified government business segment that included nuclear reactors, pressure vessels, steam generators and pressurizers for nuclear submarines and aircraft carriers. The Group also included ammunition and missile components, specialty pipe fabrication, Advanced Solid Rocket Motor bodies for the Space Shuttle, and other diverse weapon systems.

#### NASA SUPPORT

**Theron M. Bradley Jr.**, NASA Chief Engineer, is responsible for the overall review and technical readiness of all NASA programs. Bradley assures development efforts and mission operations are planned and conducted on a sound engineering basis, and provides an integrated focus for agency-wide engineering policies, standards and practices. Bradley is a former nuclear engineer for the U.S. Navy, serving in the Naval Nuclear Propulsion Program. He has also served as a civilian with the U.S. Department of Energy and the Department of Defense in numerous leadership and management positions with the Office of Naval Reactors, both in Washington and in the Idaho branch.

**Bryan D. O'Connor**, Associate Administrator for Safety and Mission Assurance, has functional responsibility for the safety, reliability, maintainability and quality assurance of all NASA programs. After the Challenger was lost, O'Connor was given a number of safety and management assignments over the next three years as the space agency recovered from the disaster. As a member of the Astronaut Corps, he has 386 hours in space covering nearly six million miles in 253 orbits of the earth.

Columbia Accident Investigation Board  
Chartered Feb. 1, 2003